

Patent Abstracts of Japan

PUBLICATION NUMBER : 57204709
PUBLICATION DATE : 15-12-82

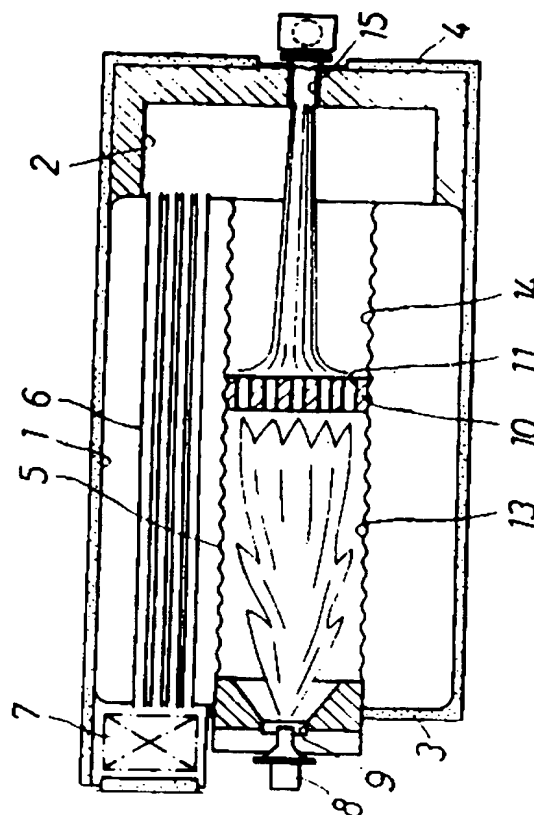
APPLICATION DATE : 12-06-81
APPLICATION NUMBER : 56091211

APPLICANT : TAKUMA SOGO KENKYUSHO:KK;

INVENTOR : NAKAO YUTAKA;

INT.CL. : F23C 11/00

TITLE : COMBUSTION FURNACE
CONTROLLING GENERATION OF
NITROGEN OXIDE



ABSTRACT : PURPOSE: To reduce the quantity of NO_x in a combustion gas by a method wherein a refractory porous wall having a plurality of throughholes is provided between the front wall and the rear wall of the furnace and a part of combustion air is blown out against the rear surface of the porous wall.

CONSTITUTION: Fuel is injected into a primary combustion chamber 13 from the injection port of a burner 8 and the primary air forming the essential part of combustion air is supplied into the chamber 13 through a primary air supply port 9. The combustion gas is mixed well with air as the flow thereof is disturbed when it passes through the throughholes 11 of a porous wall 10. At the same time, the secondary air is blown into a secondary combustion chamber 14 in the direction of the rear surface of the porous wall 10 from the secondary air supply port 15 in a rear wall 4 so that the air is well mixed with the combustion gas as it is distributed in the radial direction when it runs against the porous wall 10. Consequently, unburned hydrocarbon and carbon monoxide contained in the combustion gas disappear as a result of secondary combustion, to thereby reduce the quantity of NO_x in the combustion gas.

COPYRIGHT: (C)1982,JPO&Japio